

Work Order ID 153188

Wednesday, November 09, 2016 12:42:52 P

153188

Page 1

Item ID: 647.1714

Revision ID:

Item Name: Plate

Start Date: 11/10/2016 Start Qty: 4.00

Required Date: 11/15/2016 Req'd Qty: 4.00

Reference:

Approvals:

Process Plan: VS

Date: 11/14/16

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

647.1700

E

110

0.00

110

Waterjet

FLOW CNC Waterjet

Memo

1-Cut as per Dwg

Dwg Rev: E

Prog Rev: F

2-Deburr if necessary

0.07

120

QC2- Inspect parts off machine FAI/FAIB

0.00

120

QC

Quality Control

Memo

0.01

Ship Nov 29

647.1714
B153188
REV. E

PR 10/11/12

4

4

PR 10/11/12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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153188

Page 2

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Start Date: 11/10/2016 **Start Qty:** 4.00 ***4***

Required Date: 11/15/2016 **Req'd Qty:** 4.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

**Insp.
Stamp**

0.00

130

QC

Memo

0.01

Quality Control

0.08

140

Brake NC

Memo

0.07

Brake NC

TRACE LINE FOR BENDING WITH DT9878 T1/ T2

DAS
30
9-86

④

NOV 16 2016

0.00

150

QC

Memo

0.01

Quality Control

DAS
38
9-89

NOV 17 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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153188

Page 3

Item ID: 647.1714 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Plate
Start Date: 11/10/2016 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 11/15/2016 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 *160* Outsource4 Outsource process - Anodize	Outsource process-Anodize per QSI017 4.1.10.1 Memo Issue P/O to ATG : <u>34382</u> 1- Black Anodize as per Dwg, SEE NOTE #3 2- PRIME AS PER DWG, SEE NOTE #3 Certification of Comformity is required	0.00 120.00				<u>4</u>	<u>NOV 21 2016</u>	<u>13</u> 9-89	
170 *170* Packaging Packaging	Receive & Inspect for Damage & Mat'l Certs Memo	0.00 0.01							
180 *180* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.01				<u>4</u>			

4X SP/6-11-25

DAS 38
NOV 25 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Work Order ID 153188

Wednesday, November 09, 2016 12:42:53 P

153188

Page 4

Item ID: 647.1714

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Plate

Start Date: 11/10/2016 Start Qty: 4.00 ***4***

Cust Item ID:

Required Date: 11/15/2016 Req'd Qty: 4.00 ***4***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	Identify as per dwg & Stock Location: <u>CCK644</u>	0.00							
210									
Packaging	Memo	0.01							
Packaging	***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***								
220	QC21- Final Inspection - Work Order Release	0.00							
220									
QC	Memo	0.07							
Quality Control									

4
DAS
6
9-89

NOV 28 2016

16/11/28 JF

DAS
21
9-89

NOV 28 2016

DQA: _____ Date: _____



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Picklist Print

Wednesday, November 09, 2016 12:43:04 PM

Page 1

Work Order ID: 153188

153188

Parent Item: 647.1714

647 1714

Parent Item Name: Plate

Start Date: 11/10/2016

Required Date: 11/15/2016

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A NEW ISSUE 13-07-18 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6S.160		Purchased			No		sf	56.7000		4.614737			

M7075T6S 160

7075-T6 Sheet .160

PR 16/11/12

Location

Loc Qty

Loc Code

MAT019

56.7

m127614

6.4

m133617

18.5

m135612

31.8

6

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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WORK ORDER NON-CONFORMANCE / UPDATE

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NOTES:

1 MATERIAL: 7075-T6 ALUMINUM PER AMS-QQ-A-250/12.

2 MATERIAL: 6061-T6 ALUMINUM BAR IAW AMS-QQ-A-250/11.

3 FINISH IAW MPP-172, SECTIONS 2.1, 3.1, & 4.2.

4. DEBURR AND BREAK ALL SHARP EDGES.

5. IDENTIFY IAW MPP-120.

6 P/N 647.1701:
CLAMP F/N 1, 2, & 4; THEN MATE AND MATCH DRILL HOLES FROM F/N 1 & 2 ONTO F/N 3 AS SHOWN ON SHEET 2.

P/N 647.1702:
FOLLOW SAME PROCEDURE FOR P/N 647.1702 USING F/N 9 & 10 IN PLACE OF 1 & 2.

P/N 647.1703:
FOLLOW SAME PROCEDURE FOR P/N 647.1703 USING F/N 11, 12, & 13 IN PLACE OF F/N 1, 2, & 3, RESPECTIVELY.

7 WITH EXCEPTION OF HOLE DIMENSION, ALL DIMENSIONS SAME AS P/N 647.1710 AND P/N 647.1711, RESPECTIVELY.

8 FOR P/N 647.1701 ASSEMBLY.

9 FOR P/N 647.1702 ASSEMBLY.

10 .323" DIA FOR P/N'S 647.1714 & 647.1715
.257" DIA FOR P/N'S 647.1710 & 647.1711

11 RIVET SPACING AND ASSEMBLY TYPICAL FOR ALL CONFIGURATIONS.

12 FOR P/N 647.1703 ASSEMBLY.

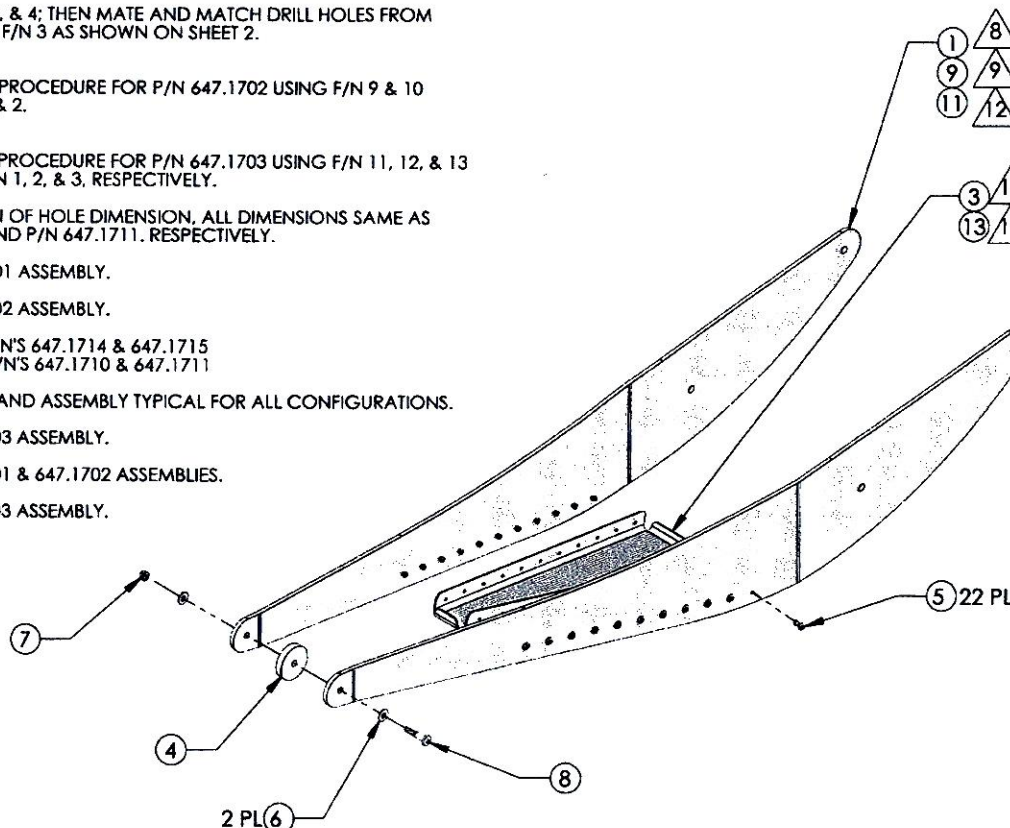
13 FOR P/N 647.1701 & 647.1702 ASSEMBLIES.

14 FOR P/N 647.1703 ASSEMBLY.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 153188

VLL
KCL
16/11/9

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
N/C	LAST PROTOTYPE REVISION: P02		N/C
N/C	INITIAL RELEASE	08/05/09	P. BRAVO
A	INCORPORATED ECN'S 02937 & 03921	06/07/13	P. BRAVO
B	INCORPORATED ECN 03970	07/03/13	P. BRAVO
C	INCORPORATED ECN 04028	08/14/13	P. BRAVO
D	INCORPORATED ECN'S 04479, 04702 & 04964	05/29/15	P. BRAVO
E	INCORPORATED ECN 05357	03/21/16	P. BRAVO



QTY	FIND #	PART #	DESCRIPTION	MATL	SPEC.
1	13	647.1718	GUSSET	△	△
1	12	647.1717	PLATE	△	△
1	11	647.1716	PLATE	△	△
1	10	647.1715	PLATE	△	△
1	9	647.1714	PLATE	△	△
1	8	601.1622	SCREW	MS27039-1-14	
1	7	601.2943	LOCKNUT	MS21042-3	
2	6	601.1607	WASHER	NAS1149F0332P	
22	5	601.1915	RIVET	CR3213-4-4	
1	4	647.1713	SPACER	△	△
1	3	647.1712	GUSSET	△	△
1	2	647.1711	PLATE	△	△
1	1	647.1710	PLATE	△	△
X		647.1703	SKID DEFLECTOR ASSY		
X		647.1702	SKID DEFLECTOR ASSY		
X		647.1701	SKID DEFLECTOR ASSY		

PARTS LIST			
QTY	647.1700	DESCRIPTION	SKID DEFLECTOR ASSY
ORIGINAL DATE	08-05-09	DRAWN BY	ENGINEER
DESIGNED BY	P. BRAVO	CHECKED BY	P. BRAVO
DRAWING APPROVAL		CONTRACT NO.	
UNLESS OTHERWISE SPECIFIED			
DIMENSIONS ARE IN INCHES			
TOLERANCES ARE:			
2 PLACES DECIMALS ± .01			
3 PLACES DECIMALS ± .005			
ANGLES ± .5°			
SCALE	NONE	SHEET	1 OF 7

DART
AEROSPACE
APCAL INDUSTRIES, INC.
950 DART AEROSPACE
3030 ENTERPRISE CT.,
SUITE A
VISTA, CA 92081
(760)-724-5300

SKID DEFLECTOR ASSY
SHEET 1 OF 7

DQA: _____ Date: _____



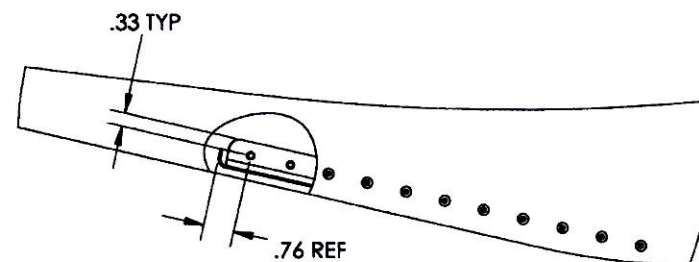
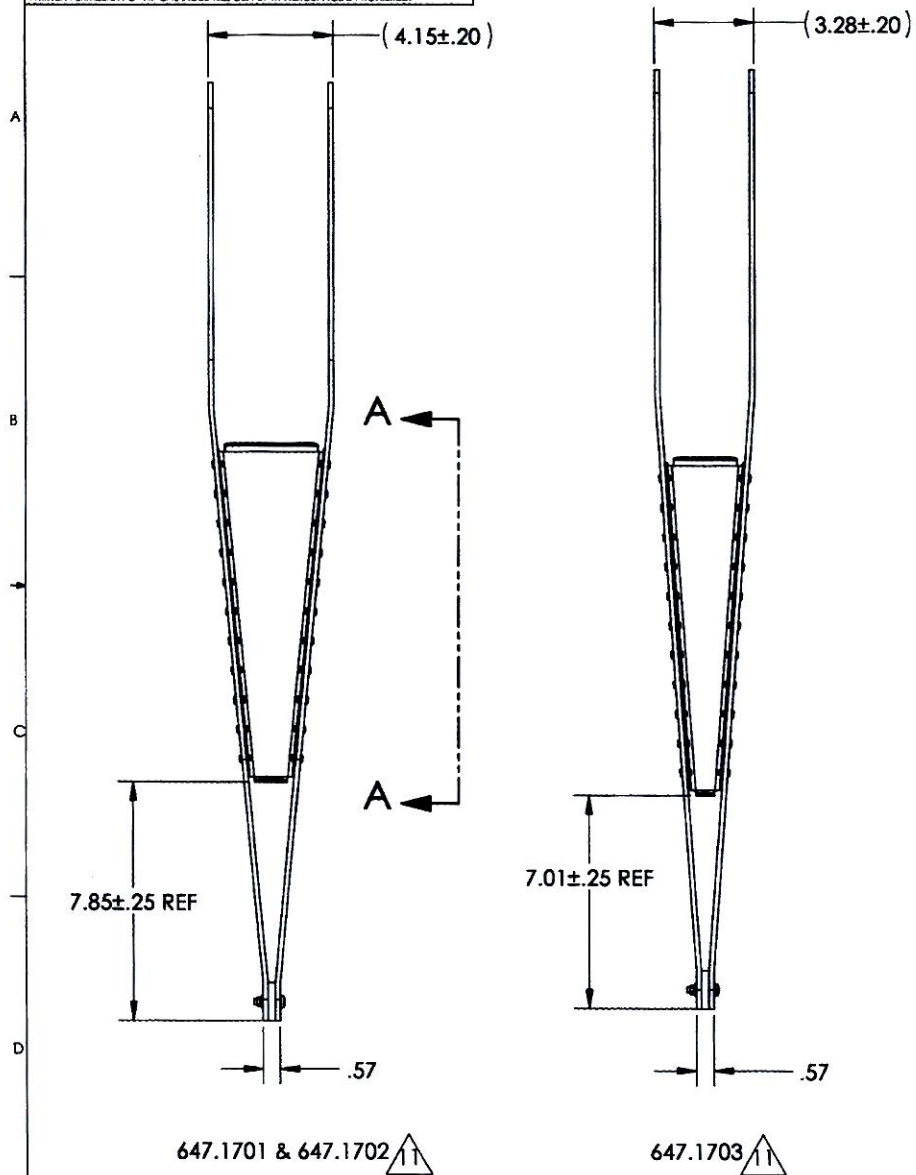
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OTHER : ☐					

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ORIGINAL DATE 08-05-09		 3030 ENTERPRISE CT., SUITE A AEROSPACE VISTA, CA 92081 APICAL INDUSTRIES INC. (760)-724-5300 DBA DART AEROSPACE	
DRAWN BY L. HUFF	CHECKED P. BRAVO		
DRAWING APPROVAL P. BRAVO	08/05/09		
CONTRACT NO.			
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°			
SEE	CAGE CODE B 07MZ6	DWG. NO. 647.1700	REV. E
SCALE NONE		SHEET 2 OF 7	

DQA: _____ Date: _____



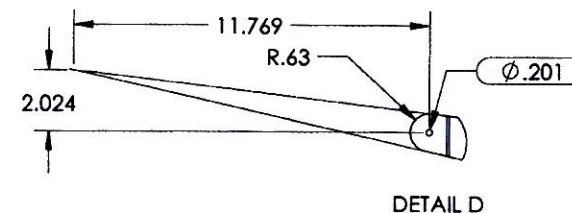
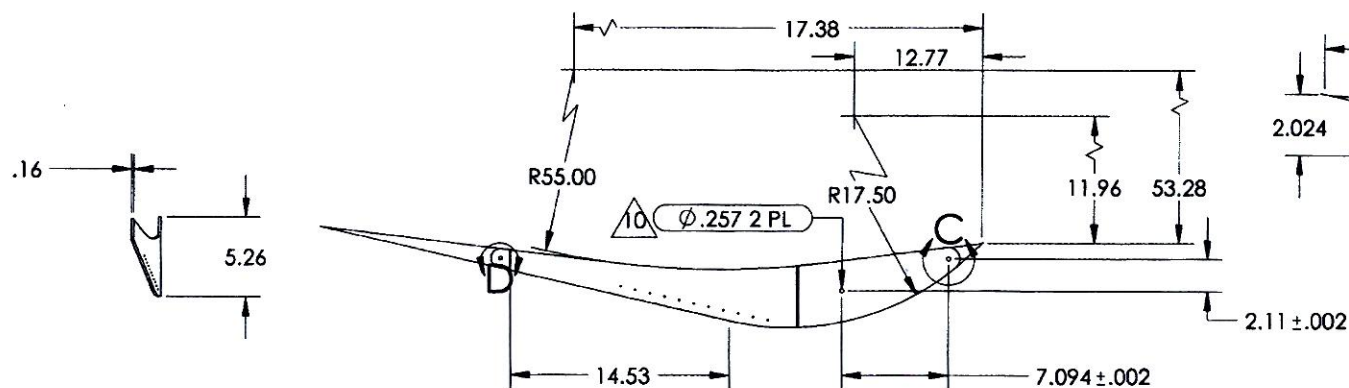
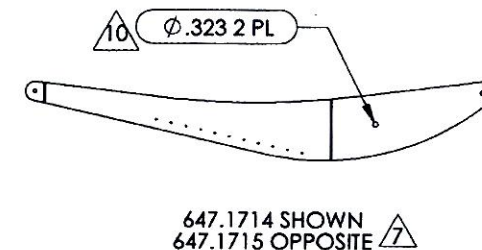
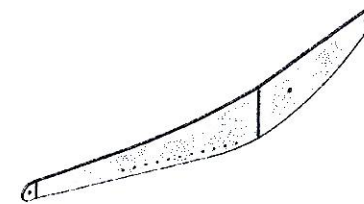
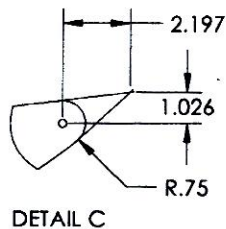
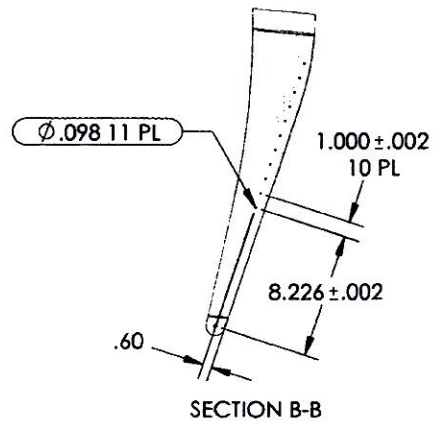
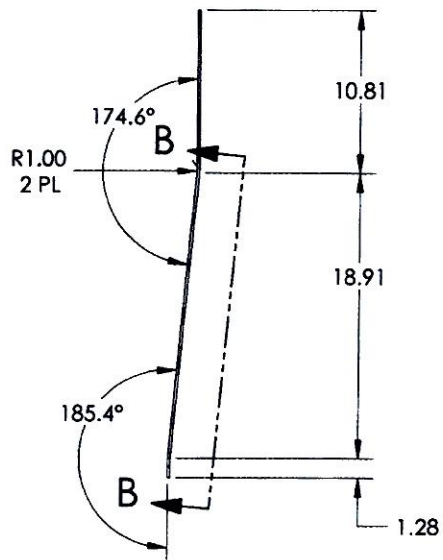
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ORIGINAL DATE 10-05-09	3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300
DRAWN BY S. HUFF	CHECKED P. BRAVO
DRAWING APPROVAL P. BRAVO	APICAL INDUSTRIES INC. DBA DART AEROSPACE
CONTRACT NO.	SKID DEFLECTOR ASSY
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°	REV. 1
SCALE NONE	

H:/FOH

DQA: _____ Date: _____



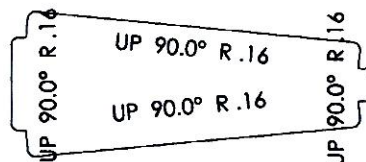
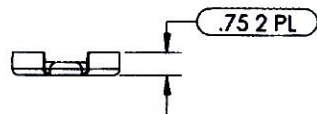
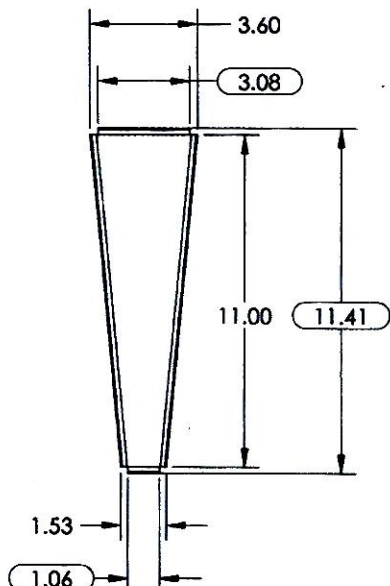
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

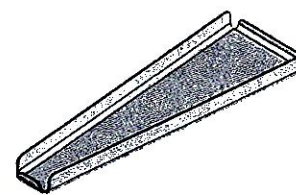
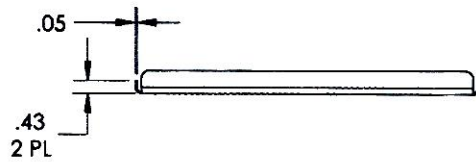
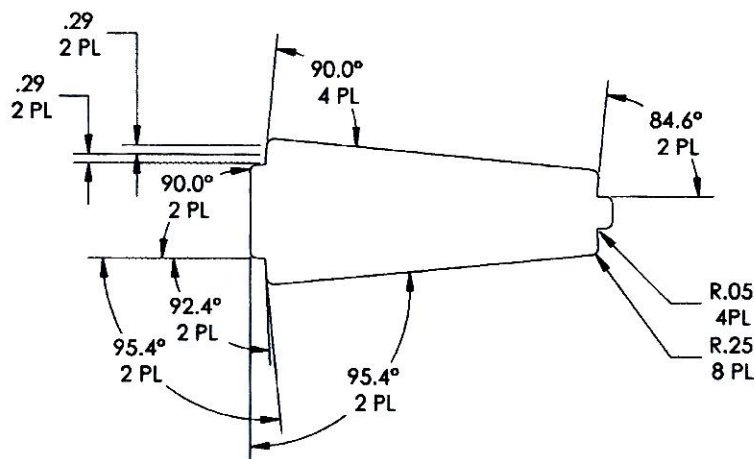
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

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FLAT PATTERN



647.1712

ORIGINAL DATE 8/5/09	 DART AEROSPACE APICAL INDUSTRIES INC. 800 DART AEROSPACE	3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300
DRAWN BY P. BRAVO		
CHECKED BY P. BRAVO		
DRAWING APPROVAL P. BRAVO		
CONTRACT NO.		
SKID DEFLECTOR ASSY		
SIZE B	CAGE CODE 07MA26	DWG. NO. 647.1700
REV. E		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ± .01 3 PLACE DECIMALS ± .005 ANGLES ± .5°		
SCALE NONE SHEET 4 OF 7		

DQA: _____ Date: _____



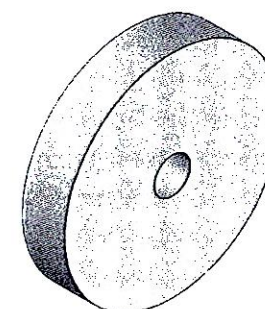
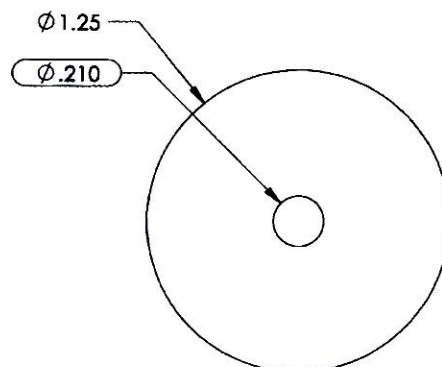
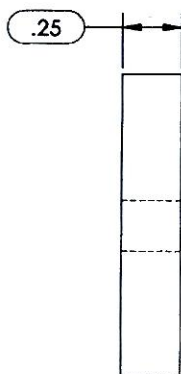
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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647.1713

ORIGINAL DATE 08-05-09		3030 ENTERPRISE CT., SUITE A VISTA, CA 92081 (760)-724-5300	
DRAWN BY S. HUFF		P. BRAVO	
DRAWING APPROVAL P. BRAVO		APICAL INDUSTRIES INC. D&A DART AEROSPACE	
CONTRACT NO.		SKID DEFLECTOR ASSY	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACES DECIMALS $\pm .01$ 3 PLACES DECIMALS $\pm .005$ ANGLES $\pm .5^\circ$		SIZE B	REV. E
CAGE CODE 07M16		DWG. NO. 647.1700	SHEET 5 OF 7
SCALE NONE			

DQA: _____ Date: _____



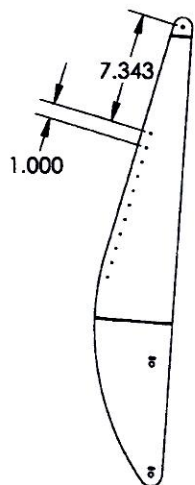
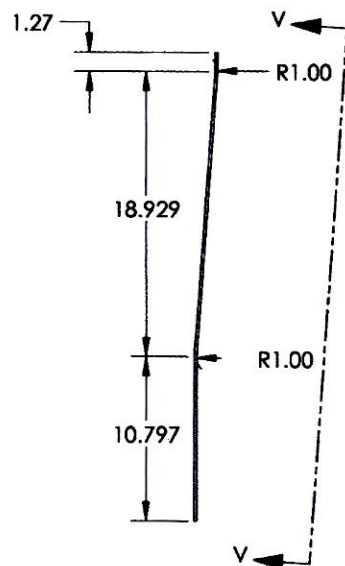
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

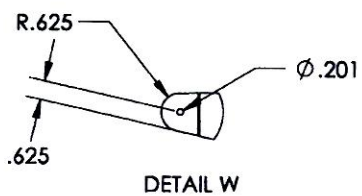
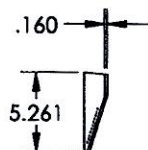
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																																																																																																		
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<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: left;">Root Cause</th> <th colspan="4" style="text-align: left;">FAULT CATEGORY</th> </tr> </thead> <tbody> <tr> <td>Environment ☐</td> <td>☐</td> <td>No Re-verification</td> <td>☐</td> <td>Pressure/Forced</td> <td>☐</td> <td>Temperature/Cure</td> <td>☐</td> <td>Power Loss/Surge</td> <td>☐</td> <td>Positioned Wrong</td> </tr> <tr> <td>Design ☐</td> <td>☐</td> <td>Operator</td> <td>☐</td> <td>Bending</td> <td>☐</td> <td>Set-up</td> <td>☐</td> <td>Folio/Program</td> <td>☐</td> <td>Outside Dimensions</td> </tr> <tr> <td>Doc/Data ☐</td> <td>☐</td> <td>Offset/Setup</td> <td>☐</td> <td>Centre Not Concentric</td> <td>☐</td> <td>BOM/Route</td> <td>☐</td> <td>Grain</td> <td>☐</td> <td>Over/Under tolerance</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>☐</td> <td>Supplier</td> <td>☐</td> <td>Cracks</td> <td>☐</td> <td>Broken/Damage/Defect</td> <td>☐</td> <td>Weld</td> <td>☐</td> <td>Part Incorrect</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>☐</td> <td>Training</td> <td>☐</td> <td>Crimp/Kink/Ripple/Wave</td> <td>☐</td> <td>Inspection Incomplete/Unqualified</td> <td>☐</td> <td>Wrong Stock Pulled</td> <td>☐</td> <td>Part Lost/Missing</td> </tr> <tr> <td>Material ☐</td> <td>☐</td> <td>Use for Testing</td> <td>☐</td> <td>Cuffs</td> <td>☐</td> <td>Contamination</td> <td>☐</td> <td>Out of Sequence</td> <td>☐</td> <td>Part Moved</td> </tr> <tr> <td>Internal Transport ☐</td> <td>☐</td> <td>Poor Information</td> <td>☐</td> <td>Crushing</td> <td>☐</td> <td>Countersink</td> <td>☐</td> <td>Off-set</td> <td>☐</td> <td>Drawing</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>☐</td> <td>Rushing</td> <td>☐</td> <td>Heat Treat</td> <td>☐</td> <td>Cut Too Short</td> <td>☐</td> <td>Mislabeled</td> <td>☐</td> <td>Finish</td> </tr> <tr> <td>LOA ☐</td> <td>☐</td> <td>Product Improvement</td> <td>☐</td> <td>Wave/Twist in Tube</td> <td>☐</td> <td>Instructions Incomplete/Unclear</td> <td>☐</td> <td>Fit/Function</td> <td>☐</td> <td>Misread</td> </tr> <tr> <td>Substation ☐</td> <td>☐</td> <td>Process Improvement</td> <td>☐</td> <td>Marks/Chatter</td> <td>☐</td> <td>Drill Holes</td> <td>☐</td> <td>Misaligned/off center</td> <td>☐</td> <td>Turning Sequence</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>☐</td> <td>Manufacturing Process</td> <td colspan="8" rowspan="2"></td> </tr> <tr> <td>Misidentified ☐</td> <td>☐</td> <td>Past Due</td> </tr> <tr> <td colspan="3"></td> <td colspan="8">OTHER :</td> </tr> </tbody> </table>						Root Cause				FAULT CATEGORY				Environment ☐	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	Design ☐	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	Doc/Data ☐	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	Equip/Tooling ☐	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	Handling/Pre ☐	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	Material ☐	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	Internal Transport ☐	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	Tribal Knowledge ☐	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	LOA ☐	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	Substation ☐	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	Past Expiry Date ☐	☐	Manufacturing Process									Misidentified ☐	☐	Past Due				OTHER :							
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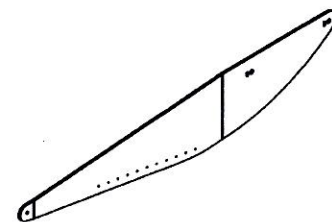
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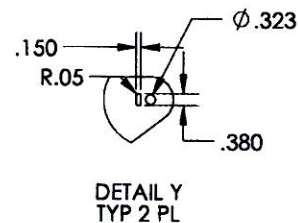
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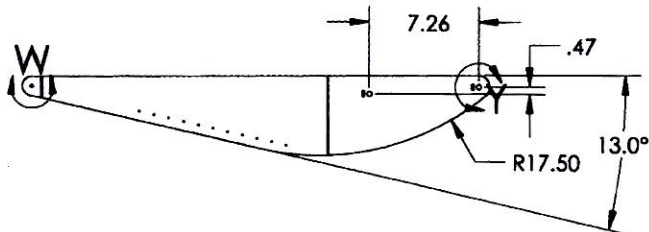
DETAIL W



647.1716 SHOWN
647.1717 OPPOSITE



DETAIL Y
TYP 2 PL



ORIGINAL DATE 08-05-09		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY L. HUFF		CHECKER P. BRAVO	
DRAWING APPROVAL P. BRAVO		APICAL INDUSTRIES INC. DART AEROSPACE	
CONTRACT NO.		SKID DEFLECTOR ASSY	
SIZE B	CAGE CODE 07M26	DWG. NO. 647.1700	REV. E
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SCALE: NONE SHEET 6 OF 7	

DQA: _____ Date: _____



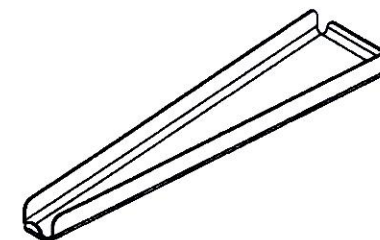
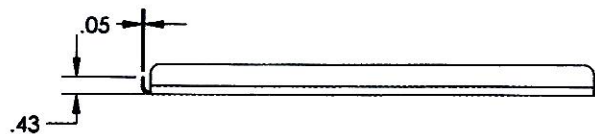
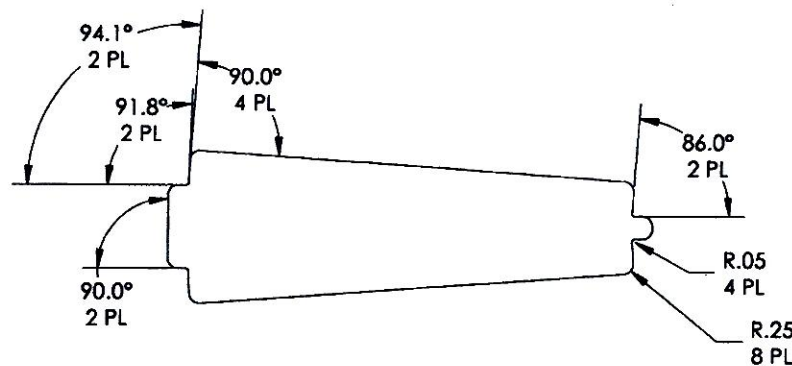
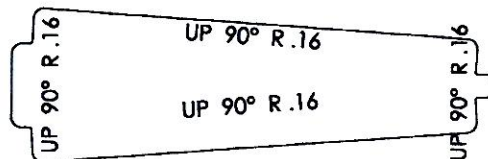
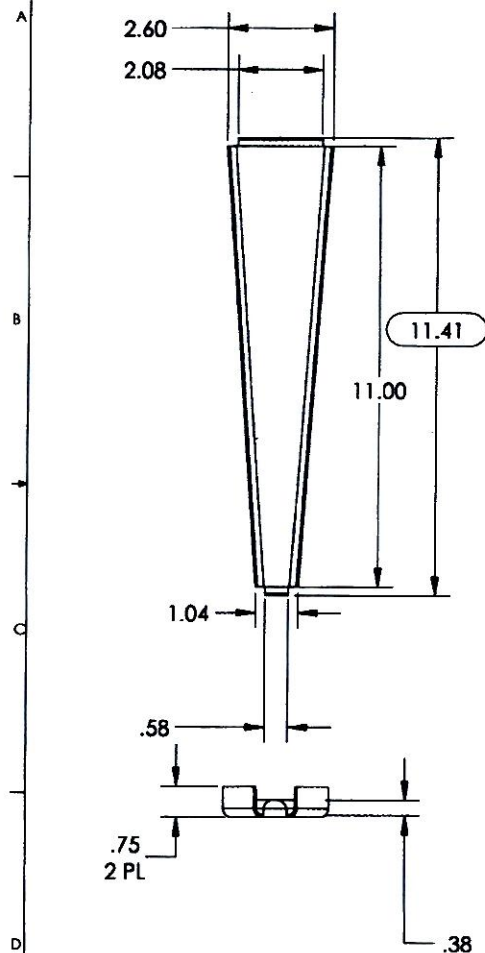
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

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647.1718

ORIGINAL DATE 10/04/07		3030 ENTERPRISE CT., SUITE A VISTA, CA. 92081 (760)-724-5300	
DRAWN BY J. HURF		DART AEROSPACE	
CHECKED BY P. BRAVO		APICAL INDUSTRIES, INC. DBA DART AEROSPACE	
DRAWING APPROVAL P. BRAVO 08/01/07		SKID DEFLECTOR ASSY	
CONTRACT NO.		REV E	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS ±.01 3 PLACE DECIMALS ±.005 ANGLES ±.5°		SIZE B	CAGE CODE 07M26
		DWG. NO. 647.1700	SHEET 7 OF 7
		SCALE NONE	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐				
Misidentified ☐	Past Due ☐	OTHER :			



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34382**

Purchase Order Date 11/21/2016

PO Print Date 11/21/2016

Page Number 2 of 3

Order From :

VC-ATG001

Ship To : DART AEROSPACE LTD

A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE ROAD
ROCKLAND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613-446-4544

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

CAD

FOB

FCA - (Free Carrier)

3	152765	646.3813 STRUT BRACKET REV. N/C	11/28/2016	5.00	\$6.10	\$30.50
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Yes

11/28/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

Line Total: \$30.50

4	153188	647.1714 PLATE REV. E	11/25/2016	4.00	\$30.25	\$121.00
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Yes

11/25/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

NOTE: PARTS ARE RUSH REQUIRED FOR THE 25 OF NOVEMBER

Line Total: \$121.00

5	153189	647.1715 PLATE REV. E	11/25/2016	10.00	\$30.25	\$302.50
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Yes

11/25/2016

FINISH: HARD BLACK ANODIZE AS PER IAW MIL-A-8625 TYPE III, CLASS 2 / PRIME AS PER IAW MIL-P-23377J TYPE I CLASS N

NOTE: PARTS ARE RUSH REQUIRED FOR THE 25 OF NOVEMBER

Line Total: \$302.50

Note:

11/21/2016



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912585

Date: 25-Nov-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
20 ea	Part: D2348 Wearplate Black Anodize per MIL-A-8625F, Type II, Class 2 Job: 20405	Rev: C PO: PO34382	Line: 1
2 ea	Part: 647.1514 Upper Deflector Black Hard Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-P-23377J, Type I, Class N Job: 20406	Rev: D PO: PO34382	Line: 2
5 ea	Part: 646.3813 Strut Black Hard Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-P-23377J, Type I, Class N Job: 20407	Rev: N/C PO: PO34382	Line: 3
4 ea	Part: 647.1714 Plate Black Hard Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-P-23377J, Type I, Class N Job: 20408	Rev: E PO: PO34382	Line: 4
10 ea	Part: 647.1715 Plate Black Hard Anodize per MIL-A-8625F, Type III, Class 2 Primer per MIL-P-23377J, Type I, Class N Job: 20409	Rev: E PO: PO34382	Line: 5
1 ea	Part: ADMIN FEE Administrative Fee	Rev: N/A	

2016-11-25



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 912585

Date: 25-Nov-16

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

CHANTAL LAVOIE
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	Job: 20410	PO: PO34382	Line: 7
DATE : <u>25/11/16</u>			
CERTIFIED SIGNATURE : <u>[Signature]</u>			
RECEIVER SIGNATURE : <u>SP/16-11-25</u>			
Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			
CERTIFICATE OF CONFORMANCE			
A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO REQUIREMENTS.			
MADE IN CANADA.			